ABSTRACT

A method for writing a master image on a substrate includes dividing the master image into a matrix of frames, each frame including an array of pixels defining a respective frame image in a respective frame position within the master image. An electron beam is scanned in a raster pattern over the substrate, while shaping the electron beam responsively to the respective frame image of each of the frames as the electron beam is scanned over the respective frame position, so that in each frame, the electron beam simultaneously writes a multiplicity of the pixels onto the substrate.